

Back To Work After Covid-19: Healthcare's New Normal

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For the US healthcare system, returning back to normal will not be easy. In a pre-vaccine world, hospitals have to safely handle large volumes of highly infectious patients while still managing routine, non-Covid-19 patient care. Hospitals have rapidly adjusted to meet the demands brought on by this first wave of Covid-19, but patient surges, staff shortages, and supply shortages have weakened the health system's capacity to address the pandemic¹. Now that it is better understood how the virus is spread, returning back to normal is all about implementing structural changes that help hospitals overcome the multifaceted challenge of prioritizing employee and patient safety while still providing quality care across the board⁵.

Data Collection



Real-time Feedback



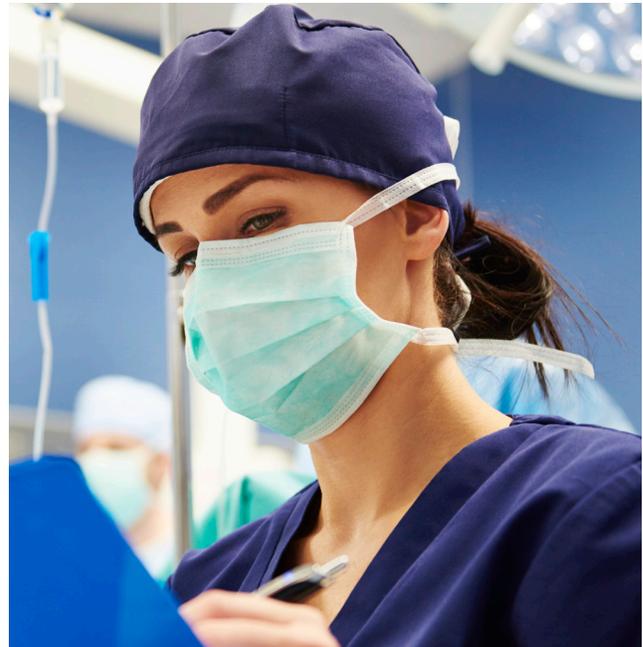
Data collection, data-sharing, and real-time feedback are proving absolutely essential not just for helping hospitals get through this pandemic, but also for prepping them to operate again at full capacity, to navigate virus resurgence as states reopen, and to provide non-Covid patient care amid hikes in Covid-19 cases⁵. Data collection and data-sharing platform Thinaër, coupled with its real-time feedback platform, can provide hospitals with the full-circle view of daily operations needed to safely function amid Covid-19. Thinaër's highly calibrated, programmable beacons can be put on anything—medical equipment, air filtration systems, a patient's wrist— and can measure things like object movement, air pressure, and body temperature with precision.

On the other side, real-time feedback allows medical staff to communicate constantly and effectively with each other about their environments, while also keeping staff isolated at home knowledgeable and attuned to daily operations at the hospital, ready to give help if needed. To confront the challenges that come with running a hospital amid this enormous uncertainty, healthcare leaders have to leverage the data coming from their own organizations to implement plans and strategies that will keep the hospital running smoothly in this pre-vaccine, Covid-positive world.

Challenge #1

Preventing the spread of the virus from person-to-person

Now that we know Covid-19 is primarily spread from person to person through respiratory droplets, healthcare leaders can act strategically to limit the spread of the virus among medical staff and patients⁷. PPE shortages have been a global challenge throughout this pandemic, and without the right technology to supplement this shortage, healthcare personnel have been infected in high numbers. In the US alone, the CDC reports that 9,282 health care workers have tested positive for the virus, further reducing the capacity of hospitals to meet Covid-19 demand and increasing hospital transmission rates². To mitigate this, healthcare leaders can utilize technology to routinely inspect the safety conditions of the hospital environment as people move in and out throughout the day, ensuring that healthcare staff are healthy and able to keep patients safe and the hospital working at full capacity.



Thinaër's wearable beacons and real-time feedback platform allow medical staff to work amongst each other and with patients safely. The beacons can help regulate new safety protocols like physical distancing by alerting employees when they are standing closer than the six foot minimum, and can also help cement these new safety regulations into daily routine by identifying employees who frequently break social distancing protocol, allowing management the opportunity to re-train them. In high-risk areas of the hospital, like those where Covid-positive patients are treated, the beacons can help trace and monitor contacts of infected people. Contact tracing is critical for lessening the risk of Covid-19 transmission in hospitals⁴. If, say, an employee falls ill, and their beacon has recorded that the employee had repeatedly broken social distancing protocol with another employee, management can be proactive about isolating that employee and reducing the risk of more widespread infection. These beacons, coupled with Thinaër's real-time feedback platform, keep employees continuously updated about behavior that may be putting themselves or their co-workers at risk, keeping more doctors working and less people infected. Real-time feedback supplements the data collected by beacons, allowing a place for employee observations and feedback to be shared about what is working, and also what more needs to be done to ensure staff and patient safety. As some workers continue working from home, the real-time feedback platform keeps employees connected, productive, and accountable. Using this technology, hospitals can take every precaution necessary to make healthcare workers as safe as possible while still operating at full capacity.

Challenge #2

Adjusting the environment to prevent airborne infections and infections from surfaces

Wearable beacons can reduce the risk of transmission from medical workers to patients, but the risk of transmissions from infected surfaces and airborne sources remains. The CDC recommends that hospitals provide airborne infection isolation rooms (AIIRs) for Covid-19 patients who require aerosol generating procedures, as well as for non-Covid patients who have airborne illnesses already like tuberculosis or the measles, to reduce the chance of airborne infection³. Emphasizing hand hygiene and limiting the number of people in contact with each patient and their medical equipment, is also recommended³. Healthcare leaders must institute a system in which all environments and surfaces are controlled, and each piece of equipment, especially those stationed around infected patients, are tracked and monitored.

Keep staff continuously disinfecting themselves throughout the day.



Hospitals can't widen hallways, they can't expand rooms, but Thinaær's beacons, the same ones that can be worn by medical staff, can help hospitals control the environment to the same effect. By monitoring air pressure, ventilation, and filtration, these beacons can help hospitals meet the CDC recommended environmental standards to prevent airborne infection in a way that is cost effective and sustainable in the long-term. These beacons can also be attached to equipment to track movement, contact by employees or patients, and can notify staff when the equipment should be disinfected. To keep staff continuously disinfecting themselves throughout the day, these beacons can be attached to help implement safe hand sanitizing practices by monitoring sanitizer use and alerting staff when sanitizing stations are not working or need to be refilled. Using real-time feedback, medical staff can constantly communicate about their environment, equipment that needs cleaning, and rooms that need adjusting.

Challenge #3

Adapting care delivery methods



Telemedicine has been on the periphery of standard medical practice for years, but lockdown and isolation have made the practice a necessity. Even after the pandemic has subsided, the value of remote care will remain— video consultations require less medical staff to coordinate, less time from the patient, and with modern technology and data-sharing, can be just as effective as in-person visits. Video consultations with doctors let non-Covid patients keep on top of their health without risking exposure, and patients with mild Covid-19 symptoms can receive all the information they would receive in-person without the added risk of exposing medical staff and other patients to the virus.⁶ For non-Covid patients with cancer, diabetes, and chronic lung illness, Covid-19 is much more lethal to them, and high-quality remote care is absolutely crucial for keeping their doctors in the loop without risking exposure to the virus.

Thinaër's home health kits, similar to their beacons, include wearable devices that capture ECG, heart rate, blood pressure, and body temperature with precision. When paired with a real-time feedback system, family caretakers, at-home nurses, and doctors can remain updated, constantly communicating, and at the ready to respond to anomaly health stats, making stays at the hospital an absolute last resort for most patients. Thinaër's real-time feedback platform also encourages people to give feedback in all directions. Patients can give feedback to their doctors, doctors can give feedback to the caretakers, and caretakers can give feedback to family. With this technology, remote care becomes just as effective and involved as in-person clinical visits, while still maximizing hospital space, time, and the safety of medical staff and patients.

We know all of the precautions we have to take to control infections from Covid-19, and getting back to normal hinges on making changes that cement these precautions into hospital routine. Thinaër's beacons and real-time feedback platform can help hospitals control hospital environments in real-time. While there is still no vaccine and plenty we don't yet know about the virus, Thinaër allows hospitals to incorporate the latest information into their daily strategy, while also creating a long-term, sustainable culture that retains hospital capacity while simultaneously treating outbreaks of highly infectious disease. As daily operations resume, especially as hospitals reopen to non-Covid patient care, monitoring and communication are essential for maintaining quality service while still maximizing staff and patient safety. The pandemic will fade, but these adjustments in hospital technology and routine will make hospitals much more resilient for the very uncertain future.

Thinaër

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With each engagement, we leverage our data collection technology—which integrates machine-data with human feedback—to develop a 360° view of the organization. We use these insights to inform our consulting approach, designing solutions that align with the organization’s best opportunities and greatest needs.

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